Dart Aerospace Ltd. Thursday, 3/30/2006 8:30:54 AM\* Date r User: Kim Johnston **Process Sheet** : BRACKET ASSEMBLY **Drawing Name** : CU-DAR001 Dart Helicopters Services Customer Job Number : 26413 : 10280 **Estimate Number** AIN: : D3137043 Part Number P.O. Number S.O. No. : N JA : D3137 REV E **Drawing Number** : 3/30/2006 This Issue : ·N/A : NC Project Number Prsht Rev. : N/A : MACHINED PARTS Type **Drawing Revision** First Issue : 26039 Material **Previous Run** : 4/20/2006 Qty: Um: ) Due Date Written By Checked & Approved By Comment **Additional Product** Job Number: Description: Machine Or Operation: Seq. #: M174B0500X02000 17-4 SS Bar 1.0 Comment: Qty.: 0.4875 f(s)/Unit Total: Material: 17-4 SS Bar per AMS 5604/5643 (M17-4-B0.500x02.000) Identify for D3137-7 Batch: Mt. 15 BAND SAW :2.0 Comment: BAND SAW O.SW Cut blanks: (1<del>.000" x</del> 2.000") 5.570" long HAAS CNC VERTICAL MACHINING #1 Comment: HAAS CNC VERTICAL MACHINING #1 1-Machine D3137-7 as per Folio FA3308and Dwg D3137 Identify as D3137-7 2-Deburr

3-Scribe batch number

INSPECT PARTS AS THEY COME OFF MACHINE

06.05.13

Each

QC2

Comment: INSPECT PARTS AS THEY COME OFF MACHINE

06.05./3

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES								
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
K05-11	2	Matil is , 500 x 2.00	E	06.06.01			1			
		permonent change.					1060511			

Part No:	PAR #:	_ Fault Category:	NCR: Yes No DQA:	Date: <u>0</u> 6/06/0
			QA: N/C Closed:	Date:

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
		Description of NC		Corrective Action Section B		Verification	Approval	Approval
DATE	STEP	Section A	<b>Initial</b> Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector
16-05-(1	2	1.00 x 2.00 matil was cut, by mistake, due to matil dimension on euro At Step. 2.	OCAF AR	I dentify the 4 pieces cut and place Aside. Change on wou to be made. cut matil regid.	060511	66.02-11	OSEN	060511

NOTE: Date & initial all entries

Thursday, 3/30/2006 8:30:55 AM Date: User: Kim Johnston **Process Sheet** Drawing Name: BRACKET ASSEMBLY Customer: CU-DAR001 Dart Helicopters Services Part Number: D3137043 Job Number: 26413 Job Number: Description: Seq. #: **Machine Or Operation:** SECOND CHECK QC8 5.0 MS Comment: SECOND CHECK 06/05/15 4 Guide 6.0 D31373 Comment: Qty.: 1.0000 Each(s)/Unit 4.0000 Each(s) Total: Pick. Qty Part Number Description Batch B26888. 1 D3137-3 GUIDE 7.0 . D31375 Washer Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s) Pick: Qty Part Number Description Batch 1 D3137-5 Washer MS24694S101 8.0 Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s) Pick: Description Batch **Qty Part Number** Screw m18431. 1 MS24694-s101 SMALL & MEDIUM FAB RESOURCE 1 9.0 SMALL FAB 1 Comment: SMALL & MEDIUM FAB RESOURCE 1 Assemble D3137-043 as per Dwg D3137 10.0 INSPECT WORK TO CURRENT STEE Comment: INSPECT WORK TO CURRENT STEP PACKAGING 1 PACKAGING RESOURCE #1 11.0 Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: Style



## Dart Aerospace Ltd

W/O:			WC	ORK ORDER CHANGI	ES		<del></del> -		
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
						•			
Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No <b>DQ</b> /	A:	Date:	
					QA: N	/C Close	d:	Date:	
NCR:		V	WORK ORDI	R NON-CONFORMA	NCE (NCF	2)			
DATE	STEP	Description of NC		Corrective Action Section		Verific	ation	Approval	Approval
DAIL	SIEF	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section		Chief Eng	QC Inspector

NOTE: Date & initial all entries

Date:

Thursday, 3/30/2006 8:30:55 AM

User: Kim Johnston **Process Sheet** 

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 26413

Part Number: D3137043

Job Number:



Seq. #:

Job Completion

Machine Or Operation:

Description:

12.0

DC

DOCUMENT CONTROL

Comment: DOCUMENT CONTROL Inspection Level 21

06/86/01 U 060601

### **Dart Aerospace Ltd**

W/O:			WO	RK ORDER CHAN	GES				<del></del> .	
DATE STEP		PROC	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
									·	
					F .					
Part No	:	PAR #:	_ Fault Categ	jory:	NC	R: Yes I	No <b>DQ</b>	\:	_ Date: _	<del> </del>
						QA: N/	C Closed	l:	_ Date: _	
NCR:		W	ORK ORDE	R NON-CONFORM	IANCE	(NCR	)			
DATE	STEP	Description of NC			ction B		Verific	ation	Approval	Approval
DATE	SIEF	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Section		Chief Eng	QC Inspector
·										
								1		
				•						

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	
Description: Bracket	Part Number:	D3137-7 *
Inspection Dwg: D3137 Rev: E		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.435	+/-0.010	,435	7			
0.615	+/-0.010	,625				
0.200	+/-0.010	,196				
0.380	+/-0.010	,387				
0.262	+/-0.010	-263				
Ø0.500	+0.005/-0.000	0.503				
0.79	+/-0.030	- 790				
2.79	+/-0.030	2.770				
Ø0.560	+0.005/-0.000	.562	//			
0.595	+/-0.010	4660				
0.950	+/-0.010	0945				
0.605	+/-0.010	,607				
1.880	+/-0.010	1.882				
2.48	+/-0.030	2-482				
4.975	+/-0.010	4.976	<u></u>			
5.41	+/-0.030	5.410	//			
0.032	+/-0.010	.031				
0.063	+/-0.010	.065				ŧ
R0.062	+/-0.010	R,063				
0.162	+/-0.010	.157				•

Measured by:	42	Audited by:	nil	Prototype Approval:	N/A
Date:	06.08.12	Date:	06/05/13	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	03.11.12	New Issue P/O D3137-043	KJ/RF <sub>2</sub>	
В	04.06.15	Changed & added dimensions	KJ/JLM	-1
С	06.03.15	Dwg Rev update	KJ/JLM OK	



DES	DS	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
СНІ	CKED	APPROVED A	DRAWING NO. REV. (
1	#	#	D3137 SHEET 1 OF 5
DAT	E	· · · · · · · · · · · · · · · · · · ·	TITLE SCALE
05	.11.23		BRACKET ASSEMBLY 1:
ļΑ		02.04.17	NEW ISSUE
В	-	03.01.16	ADD RIDGES; ADD MAT'L PROP.
С		03.08.15	ADD -043
D		04.11.03	RE-DESIGN D3137-5; CHANGE DIMS
F		05 11 23	ADD -045

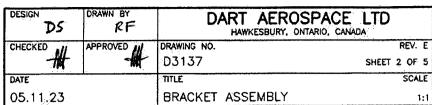
RELEASE 05-12-09

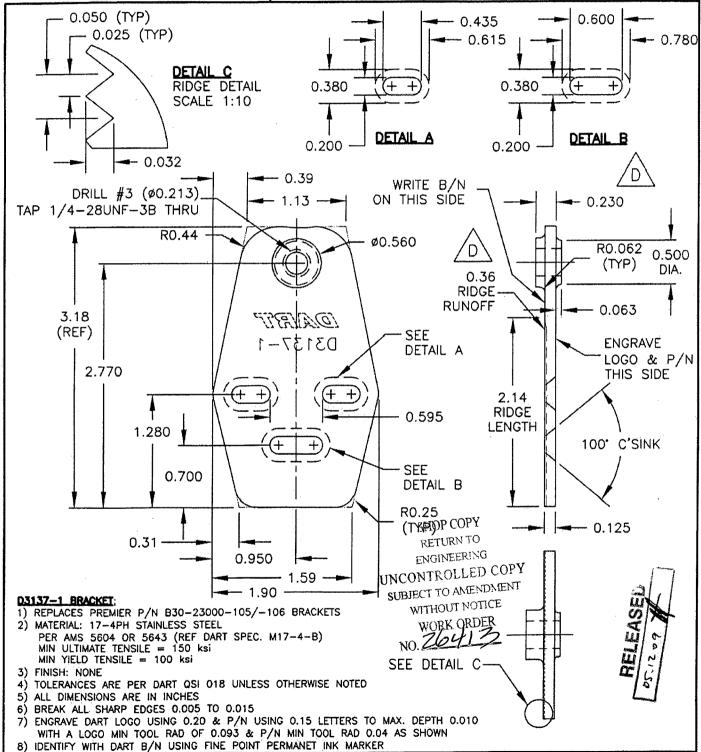
> MS24694-S101 SCREW D3137-5 WASHER D3137-3 GUIDE INSTALL ON SAME SIDE AS C'SINKS (OPPOSITE SIDE FROM RIDGES) D3137-1 BRACKET (-041 SHOWN) D3137-7 BRACKET (-043 SIMILAR) OR D3137-9 BRACKET (-045 SIMILAR)

D3137-041 BRACKET ASSEMBLY (SHOWN) D3137-043 BRACKET ASSEMBLY (SIMILAR)

SHOP COPY RETURN TO ENGINEERING UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE

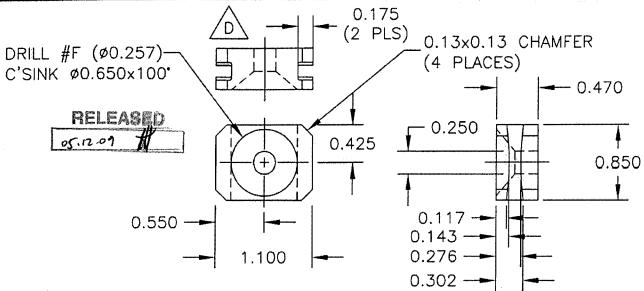






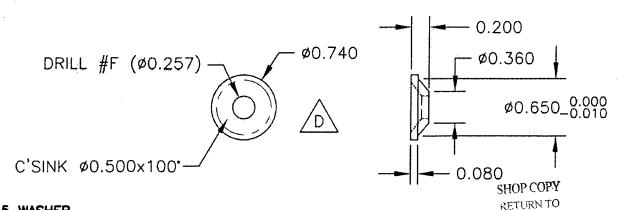


DESIGN DS	DRAWN BY	DART AEROSP HAWKESBURY, ONTAR	
CHECKED	APPROVED	DRAWING NO.	REV. E
卅	-	D3137	SHEET 3 OF 5
DATE		TITLE	SCALE
05.11.23		BRACKET ASSEMBLY	1:1



#### D3137-3 GUIDE

- 1) REPLACES PREMIER P/N B30-23000-207
- 2) MATERIAL: DELRIN BAR (REF DART SPEC. M-DELRIN-B)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL EDGES 0.005 TO 0.015



#### **D3137-5 WASHER**

1) REPLACES PREMIER P/N B30-23000-209

ENGINEERING

- 2) MATERIAL: 6061-T6 (QQ-A-225/8 OR QQ-A-200/8) BAR (REF DART SPECT M6061TER) COPY
  3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 SUBJECT TO AMENDMENT

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

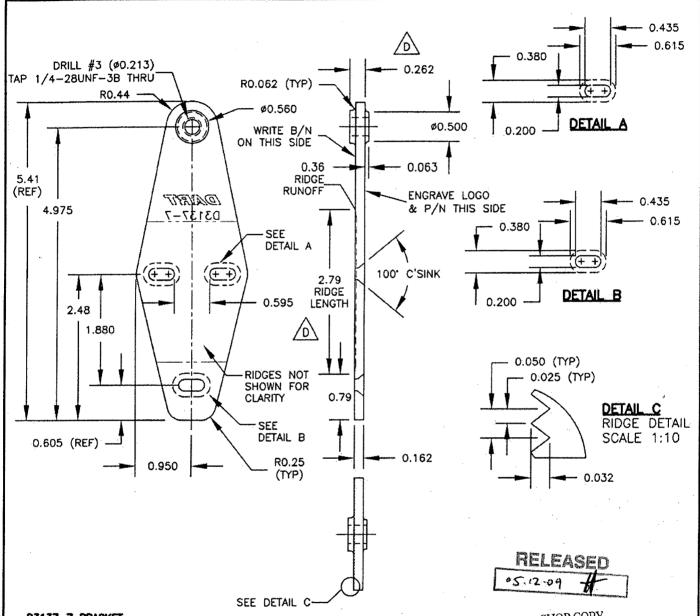
5) ALL DIMENSIONS ARE IN INCHES

6) BREAK ALL EDGES 0.005 TO 0.015

WITHOUT NOTICE



DESIGN DS	DRAWN BY	DART AEROSP, HAWKESBURY, ONTARK	
CHECKED	APPROVED 4	DRAWING NO. D3137	REV. E SHEET 4 OF 5
DATE	·····	TITLE	SCALE
05.11.23	:	BRACKET ASSEMBLY	. 2:3



03137-7\_BRACKET:

MATERIAL: 17-4PH STAINLESS STEEL PER AMS 5604 OR 5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi MIN YIELD TENSILE = 100 ksi

2) FINISH: NONE

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

4) ALL DIMENSIONS ARE IN INCHES

5) BREAK ALL SHARP EDGES 0.005 TO 0.015

ENGRAVE DART LOGO USING 0.20 & P/N USING 0.15 LETTERS TO MAX. DEPTH 0.010 WITH A LOGO MIN TOOL RAD OF 0.093 & P/N MIN TOOL RAD 0.04 AS SHOWN

7) IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

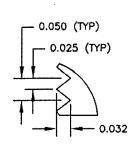
SUBJECT TO AMENDMENT

WITHOUT NOTICE

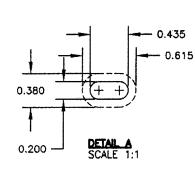
WORK ORDER NO.,

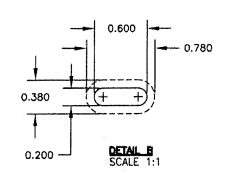


DESIGN DS	DRAWN BY	DART AEROSP. HAWKESBURY, ONTARI	
CHECKED J.	APPROVED	DRAWING NO.	REV. E
#	1 #	D3137	SHEET 5 OF 5
DATE		πιε	SCALE
05.11.23		BRACKET ASSEMBLY	1:2



DETAIL C RIDGE DETAIL SCALE 1:20





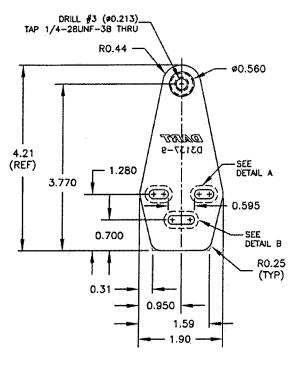
0.500

DIA.

0.262

RO.062

(TYP)



WRITE B/N ON THIS SIDE 0.063 0.36 **ENGRAVE** RIDGE LOGO & P/N THIS SIDE 2.14 RIDGE **LENGTH** 100° C'SINK 0.162



03137-9 BRACKET:
1) REPLACES PREMIER P/N B30-23000-105/-106 BRACKETS

1) REPLACES PREMIER PYN B30-23000-1057-106 BRACK
2) MATERIAL: 17-4PH STAINLESS STEEL
PER AMS 5604 OR 5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi

3) FINISH: NONE

TOLERANCES ARE PER DART OSI 018 UNLESS OTHERWISE NOTED

ALL DIMENSIONS ARE IN INCHES

BREAK ALL SHARP EDGES 0.005 TO 0.015

7) ENGRAVE DART LOGO USING 0.20 & P/N USING 0.15 LETTERS TO MAX. DEPTH 0.010 WITH A LOGO MIN TOOL RAD OF 0.093 & P/N MIN TOOL RAD 0.04 AS SHOWN 8) IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER

SHOP COPY UNCONTROLLED COPY

SUBJECT TO AMENDMENT WITHOUT NOTICE

SEE DETAIL C

